

Georgetown County Ambient Air Monitoring Stakeholder Group
Georgetown, South Carolina

April 26, 2007

Ms. Myra Reece, Chief
Bureau of Air Quality
SC Department of Health & Environmental Control
2600 Bull Street
Columbia, SC 29201

Re: Recommendations for July 1, 2007 Ambient Air Monitoring Network Plan
Georgetown, SC

Dear Ms. Reece:

The Georgetown County Air Monitoring Stakeholder Group consists of environmental professionals and local government leaders working in collaboration to improve air quality and to ensure that ambient air monitoring data collected in Georgetown County, South Carolina is of the highest possible quality. The stakeholder group assists the US Environmental Protection Agency (EPA) and South Carolina Department of Health and Environmental Control (DHEC) by evaluating the ambient air quality monitoring network in Georgetown County, South Carolina. The goal is to ensure that only credible, high quality data is available for decisions related to compliance with National Ambient Air Quality Standards (NAAQS) and when identifying priorities for further improvements in air quality that affects human health and the environment in our community.

The stakeholder group has been actively meeting to address ambient air quality monitoring issues for almost two years. We appreciate the many hours you have personally invested along with members of your staff, working with our community to achieve better air quality in South Carolina and by improving our system for measuring particulates and other pollutants in the ambient air.

Through our collective efforts, it has been determined that monitor location is the single most significant factor affecting the accuracy of the resulting data and achievement of data quality objectives. On April 4, 2007, an air monitoring site evaluation audit team, consisting of four experienced senior staff from DHEC and representatives of the Georgetown Stakeholder Group visited all four ambient air monitors in the Georgetown area. The purpose was to determine monitor conformance with federal regulations, applicable federal guidance and good engineering practice. A checklist summarizing the results of this audit is attached. As you are aware, there were a significant number of non-conformances identified during this review.

During our stakeholder meeting on April 20, 2007, you suggested that the Stakeholder Group provide DHEC recommendations for consideration as DHEC prepares the Air Monitoring Network Plan for submittal to EPA on July 1, 2007. The following are the Stakeholder Group's recommendations for each monitor in our area.

Georgetown CMS Monitor

The audit team found that the Georgetown CMS monitor has numerous nonconformances with the federal regulations, applicable federal guidelines and best management practices. These are detailed in the attached Siting/Network Analysis Checklist. The most severe nonconformance is the monitor's close proximity to local sources that have been documented to "inappropriately impact air quality data collected at this site." In particular, the truck unloading station at the domed storage is only 50 meters from the monitor. As your staff indicated at Friday's meeting, the only exceedence of the 24-hour PM_{10} limit in 2006 occurred on a day when the unloading station was in operation and the wind direction was toward the monitor. The location of this monitor is inconsistent with federal regulations and guidelines. Additionally, we all agreed that any monitor located within 50 meters of a bulk unloading facility would likely produce similar results.

Since this monitor clearly violates federal siting criteria, the Georgetown Stakeholder Group recommends that the Georgetown CMS monitor be eliminated from the ambient air monitoring network. This decision is supported by the data for 2006 that suggests a precipitous decline in ambient PM_{10} levels since the adjacent road was paved by the SC Department of Transportation in August 2005. As stated earlier, there are numerous other nonconformances with the location of this monitor that are included the attached checklist but are not discussed individually here.

Based on the April 2007 audit results and the special study conducted by DHEC in December 2004 through June 2005 (e.g., the Bourne Street study and the subsequent report to be published by DHEC soon), the Georgetown CMS monitor meets the federal definition of a micro-scale monitor [40 CFR 58 Appendix D, Section 4.6(b) and 4.6(b)(1)]. As a micro-scale monitor, past data should not be used for comparison to the Federal PM_{10} NAAQS.

Should DHEC concur with our recommendation, this monitor may be replaced with a Special Purpose Monitor (SPM) located in a manner that fully meets all applicable siting criteria. The Georgetown Stakeholder Group suggests that one SPM may be sufficient to replace the existing Georgetown area monitors, resulting in a significant cost savings to DHEC. A single SPM could be moved periodically to confirm compliance throughout the area. This would be consistent with the monitoring practices of our neighboring states. The members of the Georgetown Stakeholder Group pledge DHEC support in securing appropriate site(s) for locating the SPM.

Howard High School Monitor

As was the case with the Georgetown CMS monitor, the Howard High School Monitor was found to also have numerous nonconformances with the siting criteria during the April 4, 2007 site evaluation/audit. These are detailed in the attached Checklist. The most significant deficiencies at this monitor are its location in the midst of what has become a soil, sand, gravel, dirt and mulch storage and handling area for the Georgetown School System's maintenance department. Photographs have been provided of heavy equipment loading these materials within 20 feet of the monitor. Additionally, a nearby home (within 100 meters) has now been confirmed to burn firewood.

Because of these issues, the Howard High School site does not meet minimum Federal siting requirements and the Georgetown Stakeholder Group recommends its discontinuation. Despite this monitor's location in close proximity to industrial sources, the maintenance activity, and the wood-burning appliances; this monitor has not exceeded standards, although the resulting data is most certainly biased high as a result of the nearby local sources.

Should DHEC chose, this monitor may be replaced with a Special Purpose Monitor located in a manner that meets all siting criteria. The members of the stakeholder group pledge DHEC support in locating a SPM should DHEC determine this to be necessary.

Winyah Monitor

The Winyah Monitor also has numerous siting nonconformances including lack of security, location in a graveled parking area, truck and automobile parking within feet of the monitor, a nearby gravel roadway that receives considerable traffic, and close proximity to a major industrial source (Mittal Steel less than 1 kilometer to the South). For these reasons, the Winyah Monitor cannot be considered Neighborhood Scale and is not suitable for determining compliance with the NAAQS for PM_{2.5} or other pollutants. Since no NAAQS monitors are federally required in Georgetown due to its population, and since DHEC's strategy is to reduce the number of statewide NAAQS monitors to that required by federal regulation, the Georgetown Stakeholder Group recommends discontinuance of this monitor. PM_{2.5} monitoring is currently being conducted at Cape Romain, a location only 37 miles distant.

Should DHEC chose to continue operating a PM_{2.5} monitor in the Georgetown area, the members of the stakeholder group pledge DHEC support in locating a new monitoring site that fully meets all federal regulations, guidance and best management practices.

Maryville Monitor

The network evaluation/audit team found the Maryville Monitor to have numerous siting nonconformances as well. Most evident were the close proximity of very tall trees obstructing air flow, as well as unpaved roads to nearby homes. Three homes within 100 meters were determined to have evidence of wood burning appliances.

Since the purpose of the Maryville Monitor is to monitor Total Suspended Particulate which is not a federal monitoring requirement and due to the siting issues listed in the attached checklist, the Georgetown Stakeholder Group recommends the Maryville Monitor be discontinued. We believe this is consistent with DHEC's plan that the future monitoring network will consist of those parameters required under federal regulation.

Summary

Due to the numerous nonconformances with the siting criteria, none of the existing monitors in the Georgetown areas were found to meet federal regulations, guidance and best management practices. The Georgetown Stakeholder Group therefore recommends discontinuation of all four existing monitors effective at the earliest possible date.

According to 40 CFR 58, no NAAQS monitoring is required in Georgetown County and DHEC has indicated that the NAAQS monitoring network to be proposed to EPA in July 2007 will include the minimum number federally required.

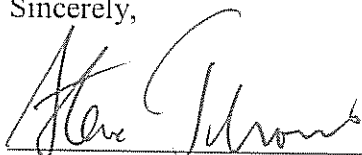
DHEC, however, may choose to operate one or more Special Purpose Monitors in the area. Reducing the total number of monitors is justified because of the following significant recent improvements in air quality:

1. The SC Department of Transportation paved sections of state road that was creating excessive road dust and high readings at the Georgetown CMS monitor. The high readings at the Georgetown CMS occurred in 2004 and early 2005. After the paving was completed in August 2006, your staff indicated that the largest year-to-year decline in PM₁₀ concentrations in the State's history occurred at this monitor.
2. Mittal Steel (formerly Georgetown Steel) discontinued the use of the Direct Reduced Iron (DRI) process in 2003 which reduced emissions from the facility. The company announced last week that it will soon be dismantling the structure, ensuring this process will never be reactivated.
3. Santee Cooper is completing installation of pollution control equipment at the nearby Winyah Electric Generating Station. SO₂ and NO_x will be reduced 72% and 86% respectively. This is probably the single most significant pollution reduction project taking place in the State of South Carolina. Annual reductions of 35,000 tons of SO₂ and 10,000 tons of NO_x will also result in significant reductions of fine particulates.
4. International Paper is completing the first project implemented under South Carolina's Environmental Innovations Pilot Program. The company is installing a new Regenerative Thermal Oxidizer and reducing emissions of sulfur, volatile organic compounds and odorous compounds.

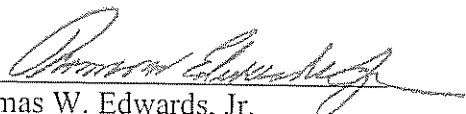
As a result of 1) the completed projects, 2) the significant improvements in ambient air quality documented in the data DHEC presented during our meeting last week, and 3) the significant additional improvements to be realized soon; it is clear to the Georgetown

Stakeholder Group that a new and improved approach to ambient air monitoring in Georgetown County is appropriate. We appreciate DHEC's willingness to work with the stakeholders and pledge to DHEC our continued support and assistance in obtaining a suitable site for any Special Purpose Monitor that the Bureau of Air Quality feels is needed to monitor air quality in our community.

Sincerely,



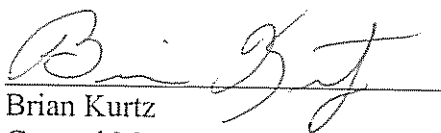
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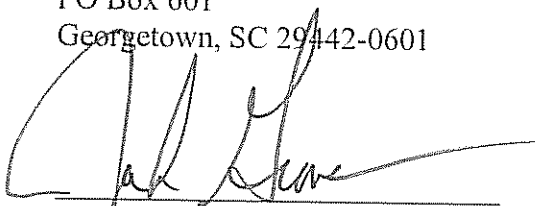
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Attachment: Siting/Network Analysis Checklist – April 17, 2007

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Ron Garrett – DHEC Region 6
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Matt Maxwell – DHEC Region 6
Allen Prevatte – Mittal Steel
Michael Elmore – SC SPA
Wayne Gregory – Georgetown County Economic Development Director
Gary Weinreich – IP
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